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29906	7590	02/25/2005	EXAMINER	
INGRASSIA FISHER & LORENZ, P.C.			ABDULSELAM, ABBAS I	
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SCOTTSDALE, AZ 85251			PAPER NUMBER	
			2674	

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/415,481

Applicant(s)

HSU ET AL.

Examiner

Abbas I Abdulsalam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-43, 45, 55 and 60-81 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39-43, 45, 55 and 60-81 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to communication filed on 01/09/04. Claims 39-43, 45, 55 and 60-81 are pending. Claims 1-38, 44 46-54 and 56-59 are cancelled.

Claim Objections

2. Claims 64-78 objected to because of the following informalities: It is not clear what the phrase "in combination" stands for and how it applies in the claims. Appropriate correction is required.

Response to Arguments

3 Applicant's arguments with respect to claims 39, 40-43 and 45 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 39, 40-43, and 45, rejected under 35 U.S.C. 103(a) as being unpatentable over Clancy et al. (USPN 5952998) in view of Chiu (USPN 6686546).

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Regarding claim 39, Clancy teaches transparent capacitive touch sensing system comprising: a substrate (col. 1, lines 36-47); a sensory array disposed on the substrate and comprising a plurality of substantially transparent conductive traces (72, 74) disposed along a first axis, the sensory array covering a portion of the substrate wherein the sensory is configured to sense capacitively the input object along a second axis (Fig. 8 and col. 1, lines 63-67), and a sensing device for detecting capacitance changes on said sensory array (col. 5, lines 5-20).

However, Clancy does not teach “a substantially transparent ground plane coupled to the bottom of the substrate and configured to shield electrically the sensory array.”

Chiu on the other hand teaches an insulating layer (16) protecting a sensor 3 from abrasion, contamination, and electrostatic discharge, and discloses that the insulating layer (16) may be a dielectric layer formed over conductor plates (10, 12) and substrate 13, (col. 5, lines 15-19, col. 7, lines 37-38 and Fig. 4 (16)).

It would have been obvious to one of ordinary skill in the art to utilize Chiu’s insulating layer (16) shown in Fig. 4 inside Clancy’s capacitive elements arrangement shown in Fig. 8 for the purpose of protecting the sensor as taught by Chiu (col. 7, lines 26-36).

Regarding claim 40, Clancy teaches a position detector for determining a position of said input object near said sensory array (col. 1, lines 48-59)

Regarding claim 41, Clancy teaches a system that recognizes tap gestures (col. 2, lines 63-67 and col. 3, lines 1-6)

Regarding claim 42, Clancy teaches said substrate is a flexible, transparent substrate (col. 1, lines 39-40 and 61-65).

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Regarding claim 43, Clancy teaches said substrate is a rigid, transparent substrate (col. 1, lines 39-40 and 61-65).

Regarding claim 45, Clancy teaches said sensory array is a top a display device (Fig. 1 (20)).

5. Applicant's arguments on page number 12 (fourth paragraph) with respect to the rejection(s) of claim 55 under U.S.C. 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Clancy et al. (USPN 5952998) and Chiu (USPN 6686546).

6. Claim 55 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clancy et al. (USPN 5952998) in view of Chiu (USPN 6686546).

Regarding claim 55, Clancy teaches transparent capacitive touch sensing system comprising (col. 1, lines 36-47): a substantially transparent two-dimensional sensory array consisting of a plurality of substantially transparent conductive traces in an X axis and a plurality of substantially transparent conductive traces in a Y axis for sensing capacitive coupling between an input object and said sensory array along two axes (Fig. 8 (72, 74) and col. 1, lines 63-67), a substantially transparent electrically insulating material separating said plurality of X traces from said plurality of Y traces (col. 4, lines 31-35); and a sensing device for detecting capacitance changes on said sensory array (col. 5, lines 5-20)..

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Clancy does not teach, "A bottom of said sensory array is electrically shielded using a substantially transparent ground plane".

Chiu on the other hand teaches an insulating layer 16 protecting a sensor 3 from abrasion, contamination, and electrostatic discharge, and discloses that the insulating layer (16) may be a dielectric layer formed over conductor plates (10, 12) and substrate 13, (col. 5, lines 15-19, col. 7, lines 37-38 and Fig. 4 (16)).

It would have been obvious to one of ordinary skill in the art to utilize Chiu's insulating layer (16) shown in Fig. 4 inside Clancy's capacitive elements arrangement shown in Fig. 8 for the purpose of protecting the sensor as taught by Chiu (col. 7, lines 26-36).

7. Applicant's arguments (page 12, fifth paragraph) with respect to the rejection(s) of claim(s) 60-63 under U.S.C. 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Clancy et al. (USPN 5952998) (same reference but different ground of rejection).

Applicant argues that the cited reference, Clancy et al. (USPN 5952998) does not teach conductive traces that form a substantially space filling pattern. However, as mentioned in the art rejection below, Clancy teaches the conductive materials forming the trace 72, and indicates that the capacitive elements 74, may be formed by silk screening or other printing techniques (74). See col. 4, lines 28-35.

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It would be obvious to utilize Clancy's silk-screening technique inside the arrangement traces (72, 76) shown in Fig. 8 in order to deposit conductive materials (known function of silk screening).

8. Claims 60-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clancy et al. (USPN 5952998).

Regarding claim 60, Clancy teaches transparent capacitive touch sensing system comprising: a substantially transparent two-dimensional sensory array consisting of a plurality of substantially transparent conductive traces in an X axis and a plurality of substantially transparent conductive traces in a Y axis for sensing capacitive coupling between an input object and said sensory array along two axes (Fig. 8 (72, 74) and col. 1, lines 63-67); a substantially transparent electrically insulating material separating said plurality of X traces from said plurality of Y traces(col. 4, lines 31-35); and a sensing device for detecting capacitance changes on said sensory array (col. 5, lines 5-20).

Clancy does not specifically teach "conductive traces in the X-axis and the Y-axis forming a substantially space-filling pattern".

Clancy on the other hand teaches the conductive materials forming the trace 72 and indicates that the capacitive elements (74) may be formed by silk-screening or other printing techniques (74). See col. 4, lines 28-35.

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It would be obvious to utilize Clancy's silk-screening technique inside the arrangement traces (72, 76) shown in Fig. 8 in order to deposit conductive materials (known function of silk screening).

Regarding claim 61, Clancy teaches said sensory array comprises a plurality of layers having approximately the same index of refraction (col. 5, lines 29-32).

Regarding claim 62, Clancy teaches said sensory array is a top a display device (Fig. 1 (20)).

Regarding claim 63, Clancy teaches sensory array is beneath a clear protective covering for a display device (col. 4, lines 63-66 and col. 5, lines 29-32).

9. Applicant's arguments on page 12 (last paragraph) and on page 13 (the first three paragraphs) with respect to the rejection(s) of claim(s) 64-68 under U.S.C. 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Fujii et al. (USPN 6411344) (same reference but different ground of rejection).

Applicant argues that the cited reference Fujii et al. (USPN 6411344) does not teach a plurality of first conductors disposed along an X axis being on the top of a polarize layer. However as shown in the art rejection below, However, Fuji teaches that it is possible to arrange a polarizing plate between a touch panel (8) and a liquid crystal cell (7). See col. 6, lines 65-67. Also note that conductive films (6) and conductive substrates (3, 4) as shown in Fig. 1 constitute a touch panel (8). It would have been obvious to one of ordinary skill in the art at the time the

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invention was made to utilize Fujii's polarizing plate (11) between a touch panel (18) and a liquid crystal cell (17) of Fig. 3; because it is possible to arrange a polarizing plate in various orientations (col. 9, lines 31-45) including between a touch panel and a liquid crystal cell (col. 6, lines 65-67).

10. Claim 64-68 rejected under 35 U.S.C. 103(a) as being unpatentable over Fujii et al. (USPN 6411344).

Regarding claim 64, Fuji teaches in combination: a liquid crystal display having a top polarizer layer (11); and a transparent touchpad (18) disposed on said top polarizes layer, including a plurality of first conductors disposed along an X axis directly on said top polarizer layer; and a plurality of second conductors disposed along a Y axis and insulated from said plurality of first conductors disposed along said X axis (Fig. 3 and col. 8, lines 35-51).

Fujii does not specifically teach the plurality of conductors being disposed directly over top polarizer layer.

Fuji on the other hand teaches that it is possible to arrange a polarizing plate shown in Fig. 3 touch panel (8) and a liquid crystal cell (7). See col. 6, lines 65-67. Note that conductive films (6) and conductive substrates (3, 4) as shown in Fig. 1 constitute a touch panel (8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Fujii's polarizing plate (11) between a touch panel (18) and a liquid crystal cell (17) of Fig. 3; because it is possible to arrange a polarizing plate in various

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orientations (col. 9, lines 31-45) including between a touch panel and a liquid crystal cell (col.6, lines 65-67).

Regarding claim 65, Fujii teaches an insulating layer insulates said plurality of first conductors disposed along said X axis from said plurality of second conductors disposed along said Y axis (col. 6, lines 46-51).

Regarding claim 66, Fuji teaches an adhesive layer disposed on one of said first and said second plurality of conductors (col. 6, lines 46-56).

Regarding claim 67, Fuji teaches a transparent layer disposed on said adhesive layer (col. 6, lines 46-56).

Regarding claim 68, Fujii teaches in combination: a liquid crystal display having a top polarizer layer (11); and a transparent touchpad (18) disposed on said top polarizer layer, including a plurality of conductors disposed along at least one axis directly on said top polarizer layer (Fig. 3 and col. 8, lines 35-51).

Fujii does not specifically teach the plurality of conductors being disposed directly over top polarizer layer.

Fuji on the other hand teaches that it is possible to arrange a polarizing plate shown in Fig. 3 touch panel (8) and a liquid crystal cell (7). See col. 6, lines 65-67. Note that conductive films (6) and conductive substrates (3, 4) as shown in Fig. 1 constitute a touch panel (8).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Fujji's polarizing plate (11) between a touch panel (18) and a liquid crystal cell (17) of Fig. 3; because it is possible to arrange a polarizing plate in various orientations (col. 9, lines 31-45) including between a touch panel and a liquid crystal cell (col.6, lines 65-67).

11. Applicant's arguments on page 13 (last paragraph) and page 14 (the first two paragraphs) with respect to the rejection(s) of claim(s) 69-72 under U.S.C. 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Jackson (USPN 4931782) and Greanias et al. (USPN 5386219)

12. Claims 69-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson (USPN 4931782) in view of Greanias et al. (5386219).

Regarding claim 69, Jackson teaches in combination: a cathode ray tube (12) having a glass envelope; and a transparent touchpad (12) disposed on said glass envelope, including, a plurality of second conductors disposed along a Y axis and insulated from said plurality of first conductors disposed along said X axis (col. 5, lines 40-50 and Fig. 1).

However, Jackson does not teach "a plurality of first conductors disposed along an X axis directly on said glass envelope".

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Greanias on the other teaches as shown on Fig. 3 a lower conductor set (9), which is disposed over the viewing surface of the display (col. 9, lines 49-50).

It would have been obvious to one of skill in the art to incorporate Greanias' conductor set (91) shown in Fig. 3 inside Jackson's touch screen overlay arrangement shown in Fig. 1; because the use of conductors helps achieve a touch overlay for improved touch sensitivity as taught by Greanias (col. 15, lines 43-51).

Regarding claim 70, Jackson teaches an insulating layer insulates said plurality of first conductors disposed along said X-axis from said plurality of second conductors disposed along said Y axis.

Regarding claim 71, Jackson teaches an adhesive layer disposed on one of said first and said second plurality of conductors (Fig. 6 and col. 8, lines 57-67).

Regarding claim 72, Jackson teaches a transparent layer disposed on said adhesive layer (Fig. 6 and col. 8, lines 57-67).

13. Applicant's arguments filed 01/09/04 with respect to claim 73-76 have been fully considered but they are not persuasive.

Applicant argues that that Clancy et al. (USPN 5952998) and Fujii et al. (USPN 6411344) cannot be combined. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where

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there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Fujii's insulating film inside Clancy's arrangement of plurality of conductors (72, 74) shown in Fig. 8; because an insulating film permits transparent conductive substrates to perform the function of the touch panel as taught by Fujii (col. 8, lines 56-59).

14. Claims 73-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clancy et al. (USPN 5952998) in view of Fuji et al. (USPN 6411344).

Regarding claim 73, Clancy discloses in combination: a liquid crystal display; and a transparent touchpad (22) disposed on said liquid crystal display, including a plurality of first conductors (74) disposed along an X axis directly on said liquid crystal display; and a plurality of second conductors (72) disposed along a Y axis and insulated from said plurality of first conductors disposed along said X axis (col. 4, lines 36-42, Fig. 7(20) and Fig. 8 (72, 74)).

Clancy does not teach a plurality of second conductors being insulated from first conductors.

Fujii on the other hand teaches that in order to impart the function of a touch panel, a spacer, an electrode, an insulating film, etc. are formed on each of the two transparent conductive substrates (col. 6, lines 46-48).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Fujii's insulating film inside Clancy's arrangement of plurality of conductors (72, 74) shown in Fig. 8; because an insulating film permits transparent conductive substrates to perform the function of the touch panel as taught by Fujii (col. 8, lines 56-59).

Regarding claim 74, Fuji teaches an insulating layer insulates said plurality of first conductors disposed along said X axis from said plurality of second conductors disposed along said Y axis (col. 6, lines 46-56).

Regarding claim 75, Fuji teaches an adhesive layer disposed on one of said first and said second plurality of conductors (col. 6, lines 46-56).

Regarding claim 76, Fuji teaches a transparent layer disposed on said adhesive layer (col. 6, lines 46-56).

15. Applicant's arguments on page 14 (third paragraph) with respect to the rejection(s) of claim 77 under U.S.C. 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view Eichelberger (USPN 4290052) (same reference but different ground of rejection).

Applicant argues that Eichelberger does not teach a fingerprint sensor. However, as shown in the art rejection below, Eichelberger teaches the use of touch pad sensor with respect to

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a fingertip. See col. 1, lines 10-13. It would have been to one of ordinary skill in the art at the time the invention was made to utilize Eichelberger's touch pad sensor with respect to fingertip inside a capacitive touch panel shown in Fig. 1 for the purpose of implementing a touch entry system (col. 1, lines 55-60).

16. Claim 77 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eichelberger (USPN 4290052).

Regarding claim 77, Eichelberger teaches in combination: a fingerprint sensor having a surface layer; and a transparent touch pad disposed on said surface layer, including a plurality of conductors disposed along at least one axis directly on said surface layer (Fig. 1a and col. 3, lines 6-15).

Eichelberger does not specifically teach the use of a fingerprint sensor.

Eichelberger on the other hand teaches the use of touch pad sensor with respect to a fingertip. See col. 1, lines 10-13.

Therefore it would have been to one of ordinary skill in the art at the time the invention was made to utilize Eichelberger's touch pad sensor with respect to fingertip inside a capacitive touch panel shown in Fig. 1 for the purpose of implementing a touch entry system (col. 1, lines 55-60).

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17. Applicant's arguments on page 14 (fourth paragraph) with respect to the rejection(s) of claim 78 under U.S.C. 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Combs et al. (USPN 5909211) (same reference but different ground of rejection).

Applicant argues that Combs does not teach a graphic underlay. However, as shown in the art rejection below, Combs teaches that the X-Y coordinate array could be disposed below or as a part of the overlay (16). See col. 4, lines 11-15. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Combs' X-Y coordinate array which could optionally be disposed as part of the overlay (16) inside an overlay housing shown in Fig. 1; because the X-Y coordinate array helps transmit touch signals to operate the overlay in finger touch (col. 4, lines 11-15).

18. Claim 78 is rejected under 35 U.S.C. 103(a) as being unpatentable over Combs et al. (USPN 5909211).

Regarding claim 78, Combs teaches in combination: a graphic underlay; and a transparent touchpad (Fig. 1 (10, 12)) disposed on said graphic underlay, including a plurality of conductors (col. 4, lines 15-20 and Fig. 5) disposed along at least one axis directly on said graphic underlay (col.2, lines 3-5).

Combs does not specifically teach a "graphic underlay".

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Combs on the other hand teaches a touch work pad and detection system (Fig. 5) with an overlay disposed above the workpad which comprising X and Y coordinate pressure sensitive conductors. Combs also teaches that the X -Y coordinate array could be disposed below or as a part of the overlay (16). See col. 4, lines 11-15.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Combs' X -Y coordinate array which could optionally be disposed as part of the overlay (16) inside an overlay housing shown in Fig. 1; because the X-Y coordinate array helps transmit touch signals to operate the overlay in finger touch (col. 4, lines 11-15).

19. Applicant's arguments, on page 14 (last paragraph) and page 15 (the first two paragraph) with respect to the rejection(s) of claim 79-81 under U.S.C. 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Clancy et al. (USPN 5952998) (same reference but different ground of rejection).

Applicant argues that that Clancy does not teach a capacitive sensor with a substantially uniform transmissivity within the active area. However, as shown in the art rejection below, Clancy teaches projection of images through appropriate arrangement of the traces (72, 76) such that the images may be projected by making the image sufficiently bold, positioning it appropriately, and sizing the array of traces 72 and 76 to leave substantial room for light to project through the array. See col. 5, lines 29-32. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Clancy's image positioning and

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sizing an array of traces (72, 76) inside touch screen-display system shown in Fig. 7 for the purpose of achieving adequate visualization (col. 5, lines 32-33).

20. Claim 79-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clancy et al. (USPN 5952998).

Regarding claim 79, Clancy teaches, substantially transparent capacitive sensor (col. 4, lines 22-27) comprising: an active area configured to accept input from a conductive object, said active area including a plurality of substantially transparent conductive traces (72, 74 and Fig. 8) disposed in an X axis and a plurality of substantially transparent conductive traces disposed in a Y axis (Fig. 8 and col. 1, lines 63-67).

However, Clancy does not specifically teach the capacitive sensor having a substantially uniform transmissivity within said active area.

Clancy on the other hand teaches projection of images through appropriate arrangement of the traces (72, 76) such that the images may be projected by making the image sufficiently bold, positioning it appropriately, and sizing the array of traces 72 and 76 to leave substantial room for light to project through the array. See col. 5, lines 29-32.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Clancy's image positioning and sizing an array of traces (72, 76) inside touch screen-display system shown in Fig. 7 for the purpose of achieving adequate visualization (col. 5, lines 32-33).

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Regarding claim 80, Clancy teaches said plurality of substantially transparent conductive traces disposed in said X axis and said plurality of substantially transparent conductive traces disposed in said Y axis together substantially occupy said active area (col. 5, lines 5-10 and Fig. 8).

Regarding claim 81, Clancy teaches plurality of substantially transparent conductive traces disposed in said X-axis and said plurality of substantially transparent conductive traces disposed in said Y axis are aligned to maximize transparency (col. 1, lines 37-40).

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following art is cited for further reference.

U.S. Pat. No. 6,016,140 to Blouin et al.

22. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Abbas Abduselam** whose telephone number is **(703) 305-8591**. The examiner can normally be reached on Monday through Friday (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Patrick Edouard** can be reached at **(703) 305-4709**.

Any response to this action should be mailed to:

Commissioner of patents and Trademarks

Washington, D.C. 20231

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or faxed to:

(703) 872-9314

Hand delivered responses should be brought to Crystal Park II, Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology center 2600 customer Service office whose telephone number is (703) 306-0377.

Abbas Abdulsalam

Examiner

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February 17, 2005

A handwritten signature in black ink, appearing to read "Patrick N. Edouard". The signature is stylized with a large, sweeping initial "P" and a cursive script for the rest of the name.

**PATRICK N. EDOUARD
PRIMARY EXAMINER**